

In the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) An isolated polypeptide comprising an RNase P consensus sequence wherein said polypeptide has RNase P protein activity, wherein said polypeptide is a bacterial polypeptide, and wherein said polypeptide is not a polypeptide from one of the following organisms: *Coxiella burnetii* (None Mile) U10529, *Rickettsia prowazekii* (Madrid E) AJ235272, *Neisseria meningitidis* (Z2491) AL162753, *Neisseria meningitidis* (MC58) AE002540, *Buchnera aphidocola* M80817, *Buchnera aphidocola* (SGS) AF008210, *Buchnera sp.* (APS) AP000398, *Haemophilus influenza* (RD KW20) U32848, *Escherichia coli* M11056, *Escherichia coli* (K-12) AE000394, *Proteus mirabilis* M58352, *Pseudomonas aeruginosa* (PAO1) AE004968, *Pseudomonas putida* P25752, *Salmonella typhi* (CT18), *Yersinia pestis* (Orientalis), *Xylella fastidiosa* AE004083, *Campylobacter jejuni* (NCTC 11168) AL139076, *Helicobacter pylori* (26695) AE000645, *Helicobacter pylori* (J99) AE001557, *Micrococcus luteus* (S66) U64884, *Mycobacterium avium* (104) AF222789, *Mycobacterium bovis* (AF2122/97), *Mycobacterium leprae* (Lortist 6) L39923, *Mycobacterium tuberculosis* (H37Rv) AL021426 X92504, *Streptomyces bikiniensis* (Zorbonenis) M83112, *Streptomyces coelicolor* (A3(2)) M82836 AL049826 AF031590, *Bacillus halodurans* (C-125) AB013492, *Bacillus subtilis* (168) X62539 AL009126, *Mycoplasma capricolum* (mcs5) P14982, *Mycoplasma genitalium* (G-37) U39713, *Mycoplasma pneumoniae* (M-129) U00089, *Staphylococcus aureus* (ISP3) AF135268, *Ureaplasma urealyticum* (3/1) AE002158, *Pseudanabaena sp.* (PCC6903) AJ000513, *Synechocystis sp.* (PCC6803) X81989, *Borrelia burgdorferi* (212) Z12166,

Borrelia burgdorferi (B31) AE000783, *Treponema pallidum* (Nichols) P50069,
Chlamydia trachomatis (serovar D) AE001351, *Chlamydia muridarum*
(trachomatis MoPn) AE002160, *Chlamydophila pneumoniae* (CWL 029)
AE001673, *Chlamydophila pneumoniae* (AR39) AE002251, *Deinococcus*
radiodurans (R1) AE002049, *Thermotoga maritima* (MSB8) AAD36531, *B.*
burgdorferi, *C. burnetii*, *C. pneumoniae*-2, *C. trachomatis*, *H. influenza*, *H. pylori*-
48, *M. leprae*, *M. luteus*, *M. tuberculosis*-2, *M. bovis*, *Pseudanabaena*-6903, *R.*
prowazeki, *S. bikiniensis*, *Synechocystis* 6803, *Staphylococcus aureus*, and *S.*
pneumoniae *Coxiella burnetii* (None Mile) U10529, *Rickettsia prowazekii* (Madrid
E) AJ235272, *Neisseria meningitidis* (Z2491) AL162753, *Neisseria meningitidis*
(MC58) AE002540, *Buchnera aphidocola* (unspecified) M80817, *Buchnera*
aphidocola (SGS) AF008210, *Buchnera* sp. (APS) AP000398, *Haemophilus*
influenza (RD KW20) U32848, *Escherichia coli* (unspecified) M11056, *Escherichia*
coli (K-12) AE000394, *Proteus mirabilis* (unspecified) M58352, *Pseudomonas*
aeruginosa (PAO1) AE004968, *Pseudomonas putida* (unspecified) P25752,
Salmonella typhi (CT18) no accession number, *Yersinia pestis* (Orientalis) no
accession number, *Xylella fastidiosa* (unspecified) AE004083, *Campylobacter*
jejuni (NCTC 11168) AL139076, *Helicobacter pylori* (26695) AE000645,
Helicobacter pylori (J99) AE001557, *Micrococcus luteus* (S66) U64884,
Mycobacterium avium (104) AF222789, *Mycobacterium bovis* (AF2122/97) no
accession number, *Mycobacterium leprae* (Lortist 6) L39923, *Mycobacterium*
tuberculosis (H37Rv) AL021426 X92504, *Streptomyces bikiniensis* (Zorbonensis)
M83112, *Streptomyces coelicolor* (A3(2)) M82836 AL049826 AF031590, *Bacillus*
halodurans (C-125) AB013492, *Bacillus subtilis* (168) X62539 AL009126,
Mycoplasma capricolum (mes5) P14982, *Mycoplasma genitalium* (G-37) U39713,
Mycoplasma pneumoniae (M-129) U00089, *Staphylococcus aureus* (ISP3)
AF135268, *Ureaplasma urealyticum* (3/1) AE002158, *Pseudanabaena* sp.

~~(PCC6903) AJ000513, Synechocystis sp. (PCC6803) X81989, Borellia burgdorferi (212) Z12166, Borellia burgdorferi (B31) AE000783, Treponema pallidum (Nichols) P50069, Chlamydia trachomatis (serovar D) AE001351, Chlamydia muridarum (trachomatis MoPn) AE002160, Chlamydophila pneumoniae (CWL 029) AE001673, Chlamydophila pneumoniae (AR39) AE002251, Deinococcus radiodurans (R1) AE002049, Thermotoga maritima (MSB8) AAD36531, B.burgdorferi, B.burgborferi partial, C.burnetii, C.pneumoniae 2, C.trachomatis, H.influenza, H.pylori 48, M.leprae, M.luteus, M.tuberculosis 2, M.bovis, Pseudanabaena 6903, R.prowazeki, S.bikiniensis, Synechocystis6803, Staphylococcus aureus, and S. pneumoniae].~~

2. (Original) The polypeptide of claim 1, wherein said polypeptide comprises an amino acid sequence selected from the group consisting of SEQ ID NOS: 20-38.

3-7. (Canceled)

8. (Original) A method of identifying an antibiotic agent, said method comprising:

- i) obtaining an RNase P holoenzyme comprising the polypeptide of claim 1;
- ii) contacting said holoenzyme with an RNase P substrate in the presence and in the absence of a compound; and
- iii) measuring the enzymatic activity of said holoenzyme; wherein a compound is identified as an antibiotic agent if said compound produces a detectable decrease in said RNase P enzymatic activity as compared to activity in the absence of said compound.

9. (Previously amended) The method of claim 8, wherein said polypeptide has at least 95% identity to the corresponding twenty amino acids: R11, L12, F18, R46, G48, V51, K53, K54, A59, V60, R62, N63, K66, R67, R70, L80, D84, V86, L101, and L105 of *E. coli* RNase P.

10. (Original) The method of claim 8, wherein said activity is measured by fluorescence spectroscopy.

11. (Currently amended) The method of claim 8, wherein said RNase P substrate is fluorescently tagged ptRNA^{Gln}.

12. (Canceled)

13. (Previously amended) The method of claim 11, wherein said contacting is carried out in a buffer comprising 10-40 µg/ml carbonic anhydrase and 10-100 µg/ml polyC.

14. (Original) The method of claim 13, wherein said buffer further comprises at least one of the following:

0.5-5% glycerol;

10-100 µg/ml hen egg lysozyme;

10-50 µg/ml tRNA; or

1-10 mM DTT.

15. (Original) The polypeptide of claim 1, having 100% identity to the corresponding twenty amino acids: R11, L12, F18, R46, G48, V51, K53, K54, A59, V60, R62, N63, K66, R67, R70, L80, D84, V86, L101, and L105 of *E. coli* RNase P.

16. (Original) The polypeptide of claim 1, wherein said polypeptide comprises an amino acid sequence at least 95% identical to any one of SEQ ID NOS: 20-38.

17. (Currently amended) The polypeptide of claim 1, wherein said polypeptide, when combined with an RNA subunit to form an RNase P holoenzyme, has at least 20% of the enzymatic activity of an *E. coli* or *B. subtilis* RNase P holoenzyme, wherein said enzymatic activity is the hydrolysis of an RNase P substrate.

18. (Original) The method of claim 14, wherein said buffer comprises 2-10 mM DTT.

19. (Original) The method of claim 9, wherein said polypeptide has 100% identity to the corresponding twenty amino acids: R11, L12, F18, R46, G48, V51, K53, K54, A59, V60, R62, N63, K66, R67, R70, L80, D84, V86, L101, and L105 of *E. coli* RNase P.

20. (Original) The method of claim 8, wherein said polypeptide comprises an amino acid sequence selected from the group consisting of SEQ ID NOS: 20-38.

21. (Currently amended) The method of claim 8, wherein said polypeptide, when combined with an RNA subunit to form an RNase P holoenzyme, has at least 20% of the enzymatic activity of an *E. coli* or *B. subtilis* RNase P holoenzyme, wherein said enzymatic activity is the hydrolysis of an RNase P substrate.

22. (New) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 20.

23. (New) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 21.

24. (New) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 22.

25. (New) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 23.

26. (New) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 24.

27. (New) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 25.

28. (New) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 26.

29. (New) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 27.

30. (New) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 28.

31. (New) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 29.

32. (New) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 30.

33. (New) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 31.

34. (New) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 32.

35. (New) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 33.

36. (New) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 34.

37. (New) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 35.

38. (New) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 36.

39. (New) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 37.

40. (New) The polypeptide of claim 2, wherein said polypeptide comprises the amino acid sequence of SEQ ID NO: 38.